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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/597,702	06/19/2000	Jin-woo Lee	Q59587	4261

7590 04/20/2005

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EXAMINER

TRUONG, LECHI

ART UNIT	PAPER NUMBER
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2194

DATE MAILED: 04/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/597,702	Applicant(s) LEE ET AL.	
	Examiner LeChi Truong	Art Unit 2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 4, 6, 8, 9, 11-15, 16-25 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6, 8, 9 and 16-25 is/are allowed.
- 6) ☒ Claim(s) 11-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. Claims 1-2, 4, 6, 8-9, 11-15, 16-25 are presented for examination. Claims 3, 5, 7, 10 are cancelled.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 11-15 are rejected under 35 U.S.C. 103(a) as being Unpatentable over Admit Prior Art (APA) in view of Thompson et al (US. Patent 5,463,772) and further in view of Melo (US. 5,802,307).
3. As to claim 11, APA teaches the invention substantially as claimed including a slaver device (slave device, page2/ Fig. 1), a predetermined coupling device (a coupling device, page 2), the host device (the host Device, page2), a storage device (a storage device, page2), the file system (a file system, page 2), a predetermined protocol (the physical coupling device, page 2, ln 5-9), an application (the application program), operates as a storage device of the host (the same manner of using a storage device within the host, pager 2, ln 1-8).
4. APA does not explicit teach media driver. However, Thompson teaches media driver (driver 18, col 19, ln 11-14/ a tape driver, col 25, ln 45-50).

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5. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of APA and Thompson because Thompson's media driver would improve the efficiency of APA's system by allowing the applications to access, read or write streams of bytes to and from a mass storage peripheral served of a transparent peripheral file system.

6. APA and Thompson do not teach accessing a top layer of driver and bottom layer of driver. However, Melo teaches accessing a top layer of driver and bottom layer of driver (transfer messages an upper level communication driver and lower level communication drivers, col 3, ln 47-52/ col 8, ln 20-26/ln 33-42, Fig. 2)

7. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of APA, Thompson and Melo because Melo's accessing a top layer of driver and bottom layer of driver would improve the flexibility of APA and Thompson's system by avoiding undesirable interruption control of the network thereby avoiding adversely affecting communication over the network.

8. **As to claim 12**, Melo teaches identifying the top layer of the media driver of the slave device (col 9, ln 11-14/ col 12, ln 22-26).

9. **As to claim 13**, APA teaches application program within host device can use the storage device of slave in the same manner of using a storage device within the host device (page2, ln 5-18), thus error correction unit in the slave device can perform connection to error correction unit or host device.

10. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admit Prior

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Art (APA) in view Thompson et al (US. Patent 5,463,772) and further in view of Melo (US. 5,802,307), as applied to claim 11 above, and further in view of Intel (Understanding the Flash Translation (FTL) Specification).

11. As to claim 14, APA, Thompson and Melo do not teach a logical-to-physical converter. However, Intel teaches logical-to-physical converter (Logical to physical mapping, section 7.0).

12. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of APA, Thompson, Melo and Intel because Intel's logical to physical mapping would increase APA and Thompson's systems by allowing the driver to translate between physical and logical addresses.

13. As to claim 15, APA teaches application program within host device can use the storage device of slave in the same manner of using a storage device within the host device (page2, ln 5-18), thus, the logical-to-physical convert of the slave can perform connection to a logical-to-physical converter of the host device.

Allowable Subject Matter

14. Claims 1-6, 8, 9, 16-25 are allowed.

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

16. Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to LeChi Truong whose telephone number is (703) 305 5312 and (571) 272-3767 (new). The examiner can normally be reached on 8 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 703-305-9678. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIP. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIP system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

LeChi Truong

April 14, 2005


SUE LAO
PRIMARY EXAMINER